

REMARKS

The Office Action mailed March 23, 2005 has been received and the Examiner's comments carefully reviewed. Claims 1, 2, 9, 11-12, 17-18, and 24 have been amended. Claims 31-32 have been added. No new subject matter has been added. Claim 10 has been cancelled. Claims 1-9 and 11-32 are currently pending. Applicants respectfully submit that the pending claims are in condition for allowance.

Objection to the Drawings and the Specification

The Examiner objected to the drawings and the specification because reference numbers 14, 72, and 90 were not shown in the drawings as discussed in the specification.

The specification has been amended to correct the objections regarding reference numbers 14 and 90. Figures 1, 3 and 5 have been amended to include reference number 72 noted in the specification on page 6 (see attached annotated drawings). The drawing amendments have been incorporated into the formal drawings submitted herewith. No new matter has been added. Applicants respectfully request approval of the drawing amendments and the formal drawings.

Rejections Under 35 U.S.C. §102

I. The Examiner rejected claims 1, 9-11 and 30 under 35 U.S.C. §102(b) as being anticipated by Rupprecht (U.S. Patent 5,669,371). Applicants respectfully traverse this rejection. Claim 10 has been cancelled.

Rupprecht discloses a masonry slitting apparatus having a housing 1, and a slitting member 4 formed of two discs 25. The housing 1 is pivotally mounted on a trolley 3 for pivotal movement parallel to the disk plane of the slitting member 4 and pivoting around a rotary bearing 6 against the force of a spring element 7. Column 3, lines 37-47. In use, both handles 9, 10 of the apparatus are gripped and contact pressure is applied manually by an operator. Column 2, lines 21-30. The apparatus disclosed in Rupprecht is a hand-held slitting apparatus.

A. Claims 1, 9, and 11

Claim 1 recites a carrier and a hand-held engraver mounted to the carrier. Rupprecht discloses only a hand-held engraver, not a carrier.

Applicants' specification defines the term "hand-held" to mean an engraver that is capable of operating apart and separate from the carrier. Page 3, lines 12-14. The Examiner characterizes the housing 1 of Rupprecht as a carrier, and a drive unit 2, a drive shaft 24, and the disks 25 as a hand-held engraver. The drive unit 2, the drive shaft 24, and the disks 25, however, cannot be operated apart and separate from the housing 1. Rather, the housing 1 supports and is required for operation of each of the drive unit 2, the drive shaft 24, and the disks 25. In light of the definition provided by Applicants' specification, Rupprecht discloses only a hand-held engraver. Rupprecht does not disclose a carrier to which a hand-held engraver can be mounted.

At least for this reason, Applicants respectfully submit that claim 1, and dependent claims 9 and 11 are patentable over Rupprecht.

B. Claim 30

Claim 30 recites a method of engraving a concrete working surface including mounting a hand-held engraver to a main body of a carrier. At least for similar reasons as discussed above with regards to Applicants' defined limitation of a "hand-held" engraver, Applicants respectfully submit that claim 30 is patentable.

Rejections Under 35 U.S.C. §103

I. The Examiner rejected claims 1-5, 7, 8, 20, 21, 24 and 26 under 35 U.S.C. §103(a) as being unpatentable over Chiuminatta (U.S. Patent 5,056,499) in view of Due (U.S. Publication No. 2003/0127904). Applicants respectfully traverse this rejection, but have amended claims 1, 2, and 24 to advance this case to allowance.

Chiuminatta teaches a soft concrete saw 10 for cutting soft concrete; i.e. concrete that has not completely hardened. The soft concrete saw 10 includes a base 12. A motor 32 is mounted on an upper surface of the base 12. The motor 32 drives a circular saw blade 34, which in turn cuts the soft concrete 34. The soft concrete saw 10 is not a walk-

behind saw. That is, the operator is not permitted to stand or walk on the working surface during operation of the saw, as the operator's weight will create foot impressions in the soft concrete. Similarly, the weight of the soft concrete saw 10 is also of concern.

A. Claims 1-5, 7, 8, 20 and 21

Claim 1 now recites a carrier having a main body that defines an enclosure, and a vacuum mount in communication with the enclosure. A hand-held engraver is mounted to the carrier such that at least a rotary head of the engraver is located within an interior of the enclosure.

Chiuminatta does not disclose a vacuum mount. The Examiner relies upon the Due reference to make up for the deficiencies of the Chiuminatta reference.

Applicants respectfully submit that there is no teaching, suggestion, or motivation to combine the vacuum mount of Due with the base 12 of Chiuminatta. The Chiuminatta reference teaches a soft concrete saw 10 for cutting soft concrete. For similar reasons why an operator cannot walk behind the soft concrete saw 10, one of skill in the art would not modify the soft concrete saw to include a vacuum mount. In particular, a vacuum mount and vacuum would add weight to the base 12, which in turn may cause the saw 10 to leave marks or depressions in the soft concrete. Also, dragging a vacuum along side the saw 10 would likely leave marks or depressions from the vacuum in the soft concrete. Last, it is not clear whether or not soft concrete creates particles that can be suctioned by a vacuum.

For at least these reasons, Applicants respectfully submit that there is no motivation to combine the vacuum mount of Due with the soft concrete saw of Chiuminatta, and that the combination can therefore only be based upon impermissible hindsight reconstruction.

Further, neither Chiuminatta nor Due teaches or suggests a carrier having an enclosure within which a rotary head is located. For example, Chiuminatta teaches that "it is believed possible to use a commercially available wood saw, sometimes called a circular hand saw, as the basic motor 32 and shield 40." Chiuminatta thereby teaches that when use of a hand-held circular saw is employed, the shield 40 within which the saw blade is located, is provided by hand-held tool, not a main body of a carrier.

In addition, Due does not teach or suggest a vacuum mount in communication with an enclosure of the carrier. Instead, the vacuum mount of Due is in communication with a shroud 83 of a grinder, not the carrier, as required by claim 1. Accordingly, combining the teachings of Due with the teachings of Chiuminatta would result in providing a vacuum mount on the shield 40 of the hand-held circular saw, not on a carrier enclosure.

At least for the above reasons, Applicants respectfully submit that claim 1, and dependent claims 2-5, 7, 8, 20 and 21 are patentable.

B. Claims 24 and 26

Claim 24 recites a carrier including a vacuum tube mounting arrangement for attaching a vacuum tube to an enclosure of the carrier, and an engraver mount for detachably mounting a hand-held engraver to the enclosure such that a rotary head of the hand-held engraver is located within the enclosure. At least for similar reasons as discussed with regards to claim 1, Applicants respectfully submit that independent claim 24, and dependent claim 26 are patentable.

II. The Examiner rejected claims 1, 15 and 17-19 under 35 U.S.C. §103(a) as being unpatentable over Johnson (U.S. Patent 5,429,420) in view of Due (U.S. Publication No. 2003/0127904). Applicants respectfully traverse this rejection, but have amended claims 1 and 17-18 to advance this application to allowance.

Johnson teaches a pavement cutting saw having a main body member 12, a blade 14 and a motor 16. The cutting saw is arranged to operate, unassisted, in a straight line.

Claim 1 recites a hand-held engraver mounted to a carrier. The Examiner asserts that Johnson discloses a hand-held engraver 14, 16. Applicants respectfully submit that only a blade 14 and a motor 16 cannot be properly characterized has a hand-held engraver. That is, the blade 14 and motor 16 alone are not capable of operating apart and separate from the main body member 12 of the cutting device 10, as defined by the term "hand-held" in Applicants' specification. At least because the basis for rejection under Johnson is flawed,

i.e., Johnson does not teach or suggest a "hand-held" engraver, Applicants respectfully submit that claim 1, and dependent claims 15 and 17-19 are patentable.

In addition, as previously discussed, neither Johnson nor Due teaches or suggests a vacuum mount in communication with an enclosure of the carrier. Instead, for example, the vacuum mount of Due is in communication with a shroud 83 of a grinder, not the carrier, as required by claim 1. For this reason also, Applicants submit that claim 1, and dependent claims 15 and 17-19 are patentable.

III. The Examiner rejected claims 1, 16, 20, 24 and 25 under 35 U.S.C. §103(a) as being unpatentable over Berger (U.S. Patent 6,478,666) in view of Due (U.S. Publication No. 2003/0127904). Applicants respectfully traverse this rejection, but have amended claims 1 and 24 to advance this case to allowance.

Berger teaches a guiding cart having a frame 1 to which an abrasive cut-off machine 12 can be fixed. The cut-off machine 12 includes an internal combustion engine 13 and a diamond cutting wheel 18 that extends outward in front of the guiding cart.

A. Claims 1, 16 and 20

Claim 1 recites an engraver apparatus including a carrier and a hand-held engraver mounted to the carrier. The carrier includes a main body defining an enclosure and a vacuum mount in communication with the enclosure. The hand-held engraver includes a rotary head that is located within an interior of the enclosure of the carrier.

Berger does not disclose a carrier having a main body that defines an enclosure within which a rotary head of an engraver is located. Rather, Berger discloses a cut-off machine 12 having a diamond cutting wheel 18 that is exposed and extends outward in front of a guiding cart. Although the cut-off machine 12 includes a protective hood 17 that partially covers the diamond cutting wheel 18, the hood 17 is part of the cut-off machine 12, not a main body of the guiding cart, as required by claim 1.

Where Berger fails to teach or suggest the limitations of claim 1, Due does not make up for the deficiencies of Berger, as Due also does not teach or suggest a hand-held engraver having a rotary head located within an interior of an enclosure of a carrier.

Further, Berger fails to teach or suggest a vacuum mount in communication with an enclosure of the carrier. The Examiner relies upon Due to make up for the deficiencies of Berger. Applicants respectfully submit that first, Due does teach or suggest a vacuum mount in communication with an enclosure of the carrier, and second, combining Due with Berger changes the principles of operation of the Berger cut-off machine 12.

First, Due does not teach or suggest a vacuum mount in communication with an enclosure of the carrier. Instead, the vacuum mount of Due is in communication with a shroud 83 of a grinder, not the carrier, as required by claim 1.

Second, incorporating a vacuum mount, for use with a vacuum, to the Berger cut-off machine 12 and cart would change the principles of operation taught by Berger. The cut-off machine 12 works in conjunction with "a water tank 6, from which water is fed to the parting-off location in a customary manner via hoses or tubes". Column 3, lines 53-56. One of the principle operations of the cut-off machine 12 is to direct a flow of fluid onto the working surface. A vacuum would potentially draw or re-direct water flow away from the working surface and thereby change the customary manner of operation.

At least because either Berger nor Due teaches or suggest a rotary head located within an enclosure of a carrier and a vacuum mount in communication with the enclosure, and at least because combining Due and Berger changes the principle operation Berger, Applicants respectfully submit that independent claim 1, and dependent claims 16 and 20 are patentable.

B. Claims 24 and 25

Claim 24 recites a carrier including an enclosure, a vacuum mount for attaching a hand-held engraver to the enclosure, and an engraver mount for detachably mounting the hand-held engraver to the enclosure such that a rotary head of the engraver is located within the enclosure.

As previously discussed, neither Berger nor Due teaches or suggests a carrier having an enclosure and vacuum mount for attaching a vacuum tube to the enclosure. Also, neither Berger nor Due teaches or suggests an engraver mount wherein the rotary head of the hand-held engraver is located within the enclosure of the carrier.

At least for these reasons, Applicants respectfully submit that independent claim 24, and dependent claim 25 are patentable.

IV. The Examiner rejected claim 6 under 35 U.S.C. §103(a) as being unpatentable over Chiuminatta (U.S. Patent 5,056,499) in view of Due (U.S. Publication No. 2003/0127904) and further in view of Johnson (U.S. Patent 5,429,420). Claim 12 is rejected under 35 U.S.C. §103(a) as being unpatentable over Rupprecht (U.S. Patent 5,669,371) and further in view of Santos (U.S. Patent 5,908,224). Claim 13 is rejected under 35 U.S.C. §103(a) as being unpatentable over Rupprecht (U.S. Patent 5,056,499) and further in view of Chiuminatta (U.S. Patent 5,579,753). Claim 14 is rejected under 35 U.S.C. §103(a) as being unpatentable over Rupprecht (U.S. Patent 5,056,499) in view of Chiuminatta (U.S. Patent 5,579,753) and further in view of Mertes (U.S. Patent 5,215,071). And, claims claim 22 and 23 are rejected under 35 U.S.C. §103(a) as being unpatentable over Berger (U.S. Patent 6,478,666) in view of Due (U.S. Publication No. 2003/0127904) and further in view of Farenholtz (U.S. Publication No. 2002/0106619 A1). Applicants respectfully traverse these rejections.

Claims 6, 12-14, 22 and 23 depend upon claim 1. In view of the remarks regarding independent claim 1, further discussion regarding the independent patentability of dependent claims 6, 12-14, 22 and 23 is believed to be unnecessary. Applicants submit that dependent claims 6, 12-14, 22 and 23 are in condition for allowance.

V. The Examiner rejected claim 27 under 35 U.S.C. §103(a) as being unpatentable over Chiuminatta (U.S. Patent 5,056,499) in view of Due (U.S. Publication No. 2003/0127904) and further in view of Santos (U.S. Patent 5,908,224). Claim 28 is rejected under 35 U.S.C. §103(a) as being unpatentable over Chiuminatta (U.S. Patent 5,056,499) in view of Due (U.S. Publication No. 2003/0127904) and further in view of Chiuminatta (U.S. Patent 5,579,753). Claim 29 is rejected under 35 U.S.C. §103(a) as being unpatentable over Berger (U.S. Patent 6,478,666) in view of Due (U.S. Publication No. 2003/0127904) and further in view of Mertes (U.S. Patent 5,215,071). Applicants respectfully traverse these rejections.

Claims 27-29 depend upon claim 24. In view of the remarks regarding independent claim 24, further discussion regarding the independent patentability of dependent claims 27-29 is believed to be unnecessary. Applicants submit that dependent claims 27-29 are in condition for allowance.

New Claims 31 and 32

New claims 31 and 32 each depend upon claim 30. At least for the reasons discussed above with regards to claim 30, Applicants respectfully submit that dependent claims 31 and 32 are patentable.

SUMMARY

It is respectfully submitted that each of the presently pending claims (claims 1-9 and 11-32) is in condition for allowance and notification to that effect is requested. The Examiner is invited to contact Applicants' representative at the below-listed telephone number if it is believed that prosecution of this application may be assisted thereby.

Although certain arguments regarding patentability are set forth herein, there may be other arguments and reasons why the claimed invention is patentably distinct. Applicants reserve the right to raise these arguments in the future.

Respectfully submitted,



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FIG. 1

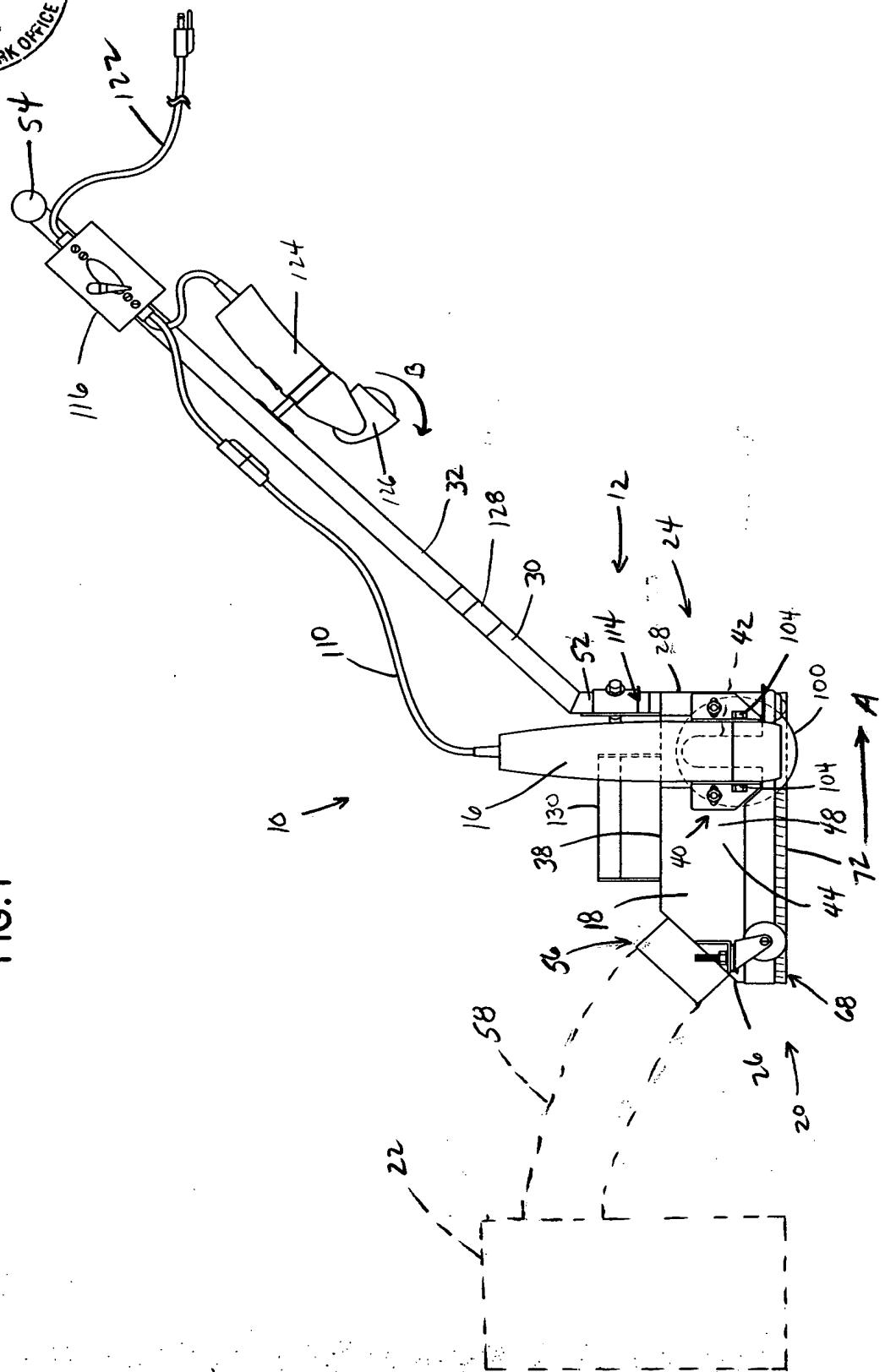


FIG.3

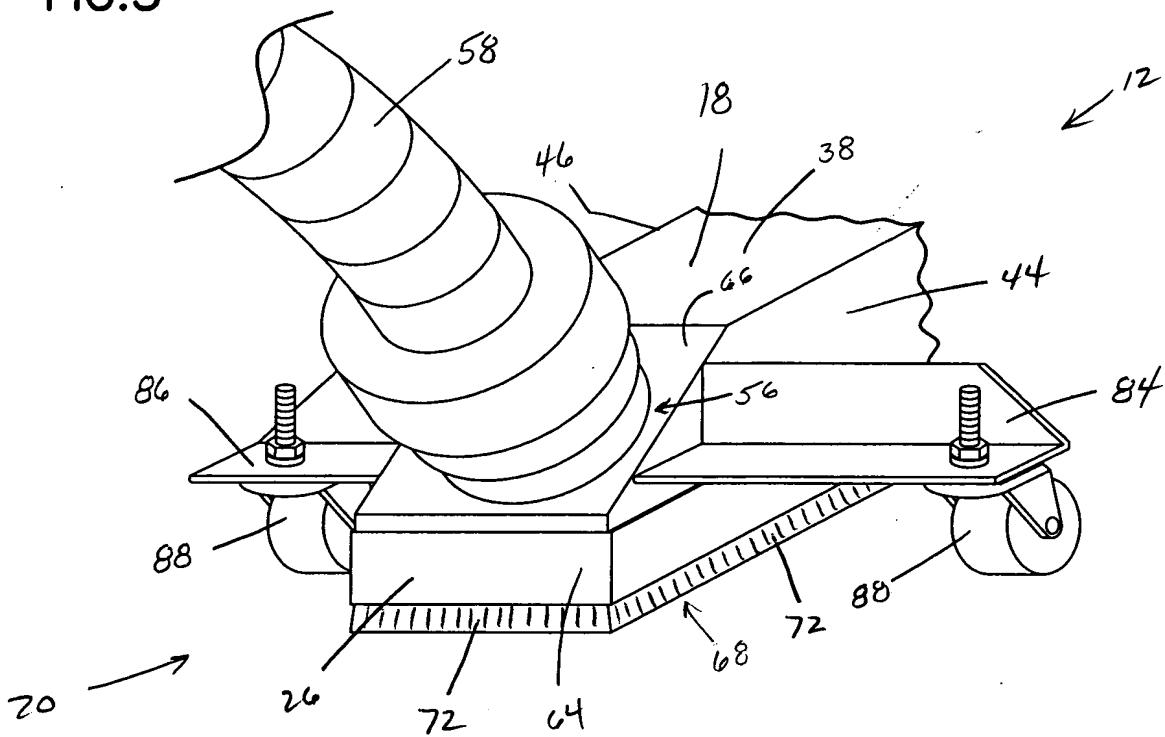


FIG. 4

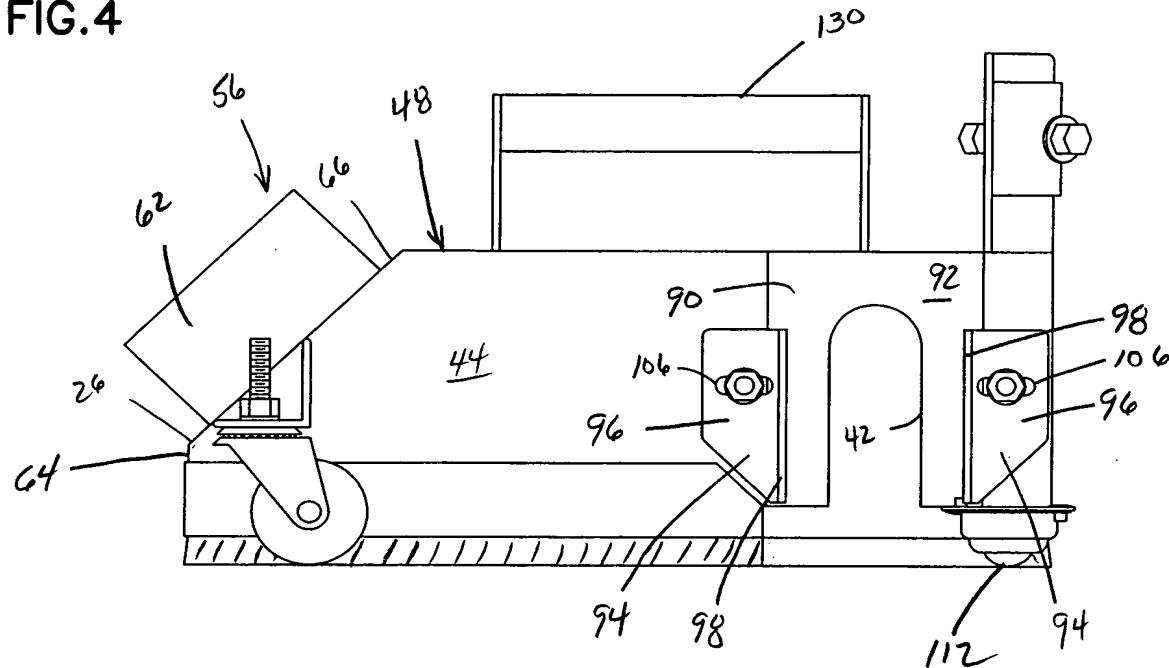


FIG.5

